**Unit 6 In Class Review:**

1. A researcher creates a 96% confidence interval in order to make a conclusion about the hypotheses Ho: μ = 85 and Ha: μ < 85.  What would his significance level (alpha) be for that test?
2. A researcher completes a test of significance using a level of significance (a) of 0.03 and a sample size of 120. If he changed his sample size to 300, what would happen to Type I error, Type II error, and Power? (increase, decrease, same)
3. A researcher completes a test of significance for Ho: µ = 9 and Ha: µ > 9 using α = 0.03. He ends up rejecting Ho, and wants to complete a matching confidence interval to find the true mean value. What level of confidence should he use?
4. A researcher completes a test of significance using a level of significance (α) of 0.07 and a sample size of 145. If he changed his significance level to 0.10, what would happen to Type I error, Type II error, and Power? (increase, decrease, same)
5. A researcher creates a 92% confidence interval in order to make a conclusion about the hypotheses Ho: μ = 12 and Ha: μ ≠ 12.  What would his significance level (alpha) be for that test?
6. A researcher completes a test of significance using a level of significance (a) of 0.08 and a sample size of 75. If he changed his significance level to 0.03, what would happen to Type I error, Type II error, and Power? (increase, decrease, same)
7. A researcher completes a test of significance for means and finds a test statistic of t = 3.22.  His sample size was 34, and his hypotheses were Ho: μ = 10 and Ha: μ > 10.  What would his p-value be for this test?
8. A researcher completes a test of significance for Ho: µ = 120 and Ha: µ ≠ 120 using α = 0.07. He ends up rejecting Ho, and wants to complete a matching confidence interval to find the true mean value. What level of confidence should he use?
9. A researcher completes a test of significance using a level of significance (a) of 0.04 and a sample size of 100. If he changed his sample size to 55, what would happen to Type I error, Type II error, and Power? (increase, decrease, same)
10. A researcher completes a test of significance for means and finds a test statistic of t = -2.15.  His sample size was 46, and his hypotheses were Ho: μ = 33.5 and Ha: μ ≠ 33.5.  What would his p-value be for this test?
11. I create a confidence interval and find (53.02, 56.78)
    1. What is my sample mean?
    2. What is my margin of error?
    3. The standard deviation is 8.7 and the sample size is 130. What is my confidence level?

p. 611 #2, 9, 13, 22, and

#32 (complete an interval to see if the mean weight is less than advertised)

#33 (complete an interval to answer the question)

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